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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Young Choi

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28249

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EXAMINER

PEACHES, RANDY

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/998,085	Applicant(s) CHOI ET AL.	
	Examiner Randy Peaches	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. ***Claims 1, 3, 6, 7, 15, 17, 20 and 22*** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson (U.S. Patent Number 5,487,182) in view of Xixun (China Patent Number CN1149235) in further view of Wang et al. (U.S. Patent Number 5,757,929).

Regarding ***claims 1, 15 and 22***, Hansson discloses a hands free module (2), which reads on claimed "hands free device, for use with a mobile telephone (1), which reads on claimed "terminal", the said mobile telephone (1) including an amplifier (26) for amplifying an audio signal that is received by the said mobile telephone (1), a switch (31) for selecting between a speaker of the said mobile telephone (1) an external speaker (see column 4 lines 6-7), and a female type connector which reads on claimed "output port", for electrically connecting the hands free module to the said mobile telephone, the said hands free module comprising:

- The external speaker (14) electronically connected to the amplifier through the said female type connector. See FIGURE 2;

- And external microphone (15) electrically connected to the said female type connector;
- A module housing (11) for attaching the said external speaker and the said external microphone to a said mobile telephone (1). See column 2 lines 1-29.
- A conventional headset, as disclosed in column 3 lines 33-37, equipped with headphones capable of being worn by a user.

However, Hansson fails to clearly disclose wherein the said external speaker and the external microphone are each fixedly attached to the user to provide a constant spatial separation there between.

Xixun clearly teaches in FIGURE 3 and FIGURE 9 wherein the clip (63) is used to fixedly attach the said microphone to the body of the user in order to provide a constant spatial separation between the microphone and the said speaker. In addition, the Applicant admits on page 8 lines 25-28 and page 9 lines 1-2 that prior art clearly teaches of preventing the retransmission or reverberated sound broadcasted by the wearable speaker.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify the teachings of Hansson (U.S. Patent Number 5,487,182) to include Xixun (China Patent Number CN1149235) in order to fixedly attach the said microphone to the user to prevent distortion in communication when the user is in motion.

However, the combination of Hansson and Xixun fails to clearly disclose wherein the external speaker is a speakerphone in conjunction with a microphone, capable is receiving and transmitting voice data.

Wang et al. teaches in column 5 lines 1-21 wherein external speakers are positioned on the upper torso of a user in order to prevent an uncomfortable experience.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify the combined teachings of Hansson (U.S. Patent Number 5,487,182) and Xixun (China Patent Number CN1149235) in further in view of Wang et al. (U.S. Patent Number 5,757,929) in order to provide a personal talking environment for a user of the external speakerphone. Additionally, the hands-free option also allows the user the freedom to performing other task while conversing.

Regarding **claims 3 and 17**, as the combination of Hansson, Xixun and Wang et. al are made, the combination according to **claims 1 and 15**, Hansson further discloses in column 2 lines 24-26, that the said hand free module (2) comprises an ear bud.

Regarding **claim 6**, as the combination of Hansson, Xixun and Wang et. al are made, the combination according to **claim 1**, Hansson further discloses in column 3 lines 42-44 and in FIGURE 3, wherein the said external speaker and the external microphone share a common housing.

Regarding **claims 7 and 20**, as the combination of Hansson, Xixun and Wang et. al are made, the combination according to **claims 1 and 15**, Hansson further discloses in column 4 lines 8-11, wherein the switch is operable to switch between the said external speaker and the internal speaker.

2. **Claims 2 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable Hansson (U.S. Patent Number 5,487,182) in view of Xixun (China Patent Number CN1149235) in further in view of Wang et al. (U.S. Patent Number 5,757,929) in further view of Gupta (U.S. Patent Publication Number US 2003/0022701 A1).

Regarding **claims 2 and 16**, as the combination of Hansson, Xixun and Wang et. al are made, the combination according to **claims 1 and 15**, fails to clearly disclose wherein the communication of the said external microphone and the external speaker are performed via Bluetooth technology.

Gutpa teaches in paragraph {0031} wherein the communication between the external microphone and the external speaker can be performed via Bluetooth wireless technology.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify the combined teachings of Hansson, Xixun and Wang et al. to further Gupta include in order to provide a means of communication with the mobile terminal without the use of wires.

3. **Claims 4-5 and 18-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson (U.S. Patent Number 5,487,182), Xixun (China Patent Number CN1149235) and Wang et al. (U.S. Patent Number 5,757,929) in further view of Hahn et al (U.S. Patent Number 6,078,825).

Regarding **claims 4 and 18**, as the combination of Hansson, Xixun and Wang et al. are made, the combination according to **claims 1 and 15**, Hansson discloses a hands free module (2), which reads on claimed "hands free device, for use with a mobile telephone (1), which reads on claimed "terminal", the said mobile telephone (1) including an amplifier (26) for amplifying an audio signal that is received by the said mobile telephone (1), a switch (31) for selecting between a speaker of the said mobile telephone (1) an external speaker (see column 4 lines 6-7), and a female type connector which reads on claimed "output port", for electrically connecting the hands free module to the said mobile telephone, the said hands free module comprising:

- The external speaker (14) electronically connected to the amplifier through the said female type connector. See FIGURE 2;
- And external microphone (15) electrically connected to the said female type connector;
- A module housing (11) for attaching the said external speaker and the said external microphone to a said mobile telephone (1). See column 2 lines 1-29.
- A conventional headset, as disclosed in column 3 lines 33-37, equipped with headphones capable of being worn by a user.

However, Hansson fails to clearly disclose wherein the said external speaker and the external microphone are each fixedly attached to the user to provide a constant spatial separation there between.

Xixun clearly teaches in FIGURE 3 and FIGURE 9 wherein the clip (63) is used to fixedly attach the said microphone to the body of the user in order to provide a constant spatial separation between the microphone and the said speaker.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify the teachings of Hansson (U.S. Patent Number 5,487,182) to include Xixun (China Patent Number CN1149235) in order to fixedly attach the said microphone to the user to prevent distortion in communication when the user is in motion.

However, the combination of Hansson and Xixun fails to clearly disclose wherein the external speaker is a speakerphone in conjunction with a microphone, capable is receiving and transmitting voice data.

Wang et al. teaches in column 5 lines 1-21 wherein external speakers are positioned on the upper torso of a user in order to prevent an uncomfortable experience.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify the combined teachings of Hansson (U.S. Patent Number 5,487,182) and Xixun (China Patent Number CN1149235) in further in view of Wang et al. (U.S. Patent Number 5,757,929) in order to provide a personal talking environment for a user of the external speakerphone. Additionally, the hands-free option also allows the user the freedom to performing other task while conversing.

However, the combination of Hansson, Xixun and Wang et al. does not expressly teach of an external speaker driven by an external amplifier that is powered by an external battery.

Hahn et al teaches in FIGURE 10 and column 8 lines 16-19, of a headset system comprised of a speaker (24) that is driven by an audio amplifier (104) that is powered by a detachable battery pack (22).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify the combined teachings of Hansson, Xixun and Wang et al. to further include Hahn et al. in order to provide a hands-free module functionally integrated with a separate means of powering and amplifying a speaker independent from the base mobile terminal.

Regarding **claims 5 and 19**, as the above combination of Hansson, Xixun, Wang et al. and Hahn et al. are made, the combination according to **claims 4 and 18**, further teaches, as disclosed by Hahn et al in FIGURE 3 column 2 lines 1-14, where the external/wearable speaker and the external microphone share a common housing.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify the combined teachings of Hansson, Xixun and Wang et al. to further include Hahn et al (U.S. Patent Number 6,078,825) in order to provide a hands-free module functionally integrated with a separate means of powering and amplifying a speaker independent from the base mobile terminal.

4. **Claims 8-9 and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson (U.S. Patent Number 5,487,182), Xixun (China Patent Number CN1149235) and Wang et al. (U.S. Patent Number 5,757,929) in further view of Kashiwamura (U.S. Publication Number 2002/0016188 A1).

Regarding **claim 8**, as the combination of Hansson, Xixun and Wang et al. are made, the combination according to **claim 7**, the combination fails to expressly disclose where the mode select switch, the external speaker, and the external microphone share a common housing.

Kashiwamura teaches in FIGURE 1 and paragraphs [0031, 0033], where a headset is displayed with a earphone 3b, which reads on claimed "external speaker" and a microphone 3c, which reads on claimed "external microphone", as well as, the communication start and end button 3e, which reads on claimed "mode switch", is located within the same housing.

Therefore at the time of the invention one of ordinary skill in the art would modify the combined teachings of Hansson, Xixun and Wang et al. to further include Kashiwamura (U.S. Publication Number 2002/0016188 A1) in order to provide an operable external hand free module capable of facilitating an external speaker, and external microphone and switch on the said module.

Regarding **claims 9 and 21** as the combination of Hansson, Xixun and Wang et al. are made, the combination according **claims 7 and 20**, further teaches, as disclosed by

Kashiwamura in FIGURE 1 and paragraphs [0033], that the said communication start and end button 3e and said microphone 3c share a common housing.

Therefore at the time of the invention one of ordinary skill in the art would modify the combined teachings of Hansson, Xixun and Wang et al. to further include Kashiwamura (U.S. Publication Number 2002/0016188 A1) in order to provide an operable external hand free module capable of facilitating an external speaker, and external microphone and switch on the said module.

5. **Claims 10 and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson (U.S. Patent Number 5,487,182), Xixun (China Patent Number CN1149235) and Wang et al. (U.S. Patent Number 5,757,929) in further view of Heeden (U.S. Patent Number 5,640,459).

Regarding **claim 10**, as the combination of Hansson, Xixun and Wang et al. are made, the combination according to **claim 1**, the combination fails to expressly disclose teach wherein the external speaker is slideably affixed to and substantially supported by a lanyard.

Heeden discloses in column 6 lines 6-10 where a device, comprising of a speaker, attached to a lanyard, which reads on claimed "supported by a lanyard".

Therefore at the time of the invention one of ordinary skill in the art would modify the combined teachings of Hansson, Xixun and Wang et al. to further include Heeden

(U.S. Patent Number 5,640,459) in order to provide a speaker for a hands-free module capable of being supported on a lanyard around a user's neck.

Regarding **claim 11**, as the combination of Hansson, Xixun, Wang et al. and Heeden are made, the combination according to **claim 10** are made, wherein, as taught by Heeden in column 5 lines 2-6, where the speaker is placed in the lower most portion of the housing, which reads on claimed "bottommost position" on the lanyard.

Therefore at the time of the invention one of ordinary skill in the art would modify the combined teachings of Hansson, Xixun and Wang et al. to further include Heeden (U.S. Patent Number 5,640,459) in order to provide a speaker for a hands-free module capable of being supported on a lanyard around a user's neck.

6. **Claims 12 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson (U.S. Patent Number 5,487,182), Xixun (China Patent Number CN1149235) and Wang et al. (U.S. Patent Number 5,757,929) in further view of Heeden (U.S. Patent Number 5,640,459) in further view of Hahn et al (U.S. Patent Number 6,078,825).

Regarding **claim 12**, as the combination of Hansson, Xixun, Wang et al. and Heeden are made, the combination according to **claim 10**, fails to expressly teach of an external speaker driven by an external amplifier that is powered by an external battery.

Hahn et al teaches in FIGURE 10 and column 8 lines 16-19, of a headset system comprised of a speaker (24) that is driven by an audio amplifier (104) that is powered by a detachable battery pack (22).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify the combined teachings of Hansson, Xixun, Wang et al. and Heeden include Hahn et al (U.S. Patent Number 6,078,825) in order to provide a hands-free module functionally integrated with a separate means of powering and amplifying a speaker independent from the base mobile terminal and operable to be supported on a lanyard.

Regarding **claim 13**, as the above combination Hansson, Xixun, Wang et al. and Heeden are made, the combination according to **claim 10**, fails to expressly teach of an external speaker wherein the external speaker and microphone share a common housing.

Hahn et al as disclosed by Hahn et al in FIGURE 3 column 2 lines 1-14, where the external speaker and the external microphone share a common housing.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify the combined teachings of Hansson, Xixun, Wang et al. and Heeden include Hahn et al (U.S. Patent Number 6,078,825) to further include Hahn et al (U.S. Patent Number 6,078,825) in order to provide a hands-free module functionally integrated wherein the external speaker and the external microphone share a common housing.

7. **Claim 14** is rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson (U.S. Patent Number 5,487,182), Xixun (China Patent Number CN1149235) and Wang et al. (U.S. Patent Number 5,757,929) in view of Heeden (U.S. Patent Number 5,640,459) and in further view of Richenstein et al (U.S. Publication Number 2003/0083024 A1).

Regarding **claim 14**, as the combination of Hansson, Xixun, Wang et al. are made, the combination according to **claim 1**, the combination fails to expressly teach wherein the external speaker is slideably affixed to and substantially supported by a lanyard.

Heeden discloses in column 6 lines 6-10 where a device, comprising of a speaker, attached to a lanyard, which reads on claimed "supported by a lanyard".

Therefore at the time of the invention one of ordinary skill in the art would modify the combined teachings of Hansson, Xixun, Wang et al. and Heeden include Hahn et al (U.S. Patent Number 6,078,825) in order to provide a speaker for a hands-free module capable of being supported on a lanyard around a user's neck.

However, the combination of Hansson, Xixun, Wang et al. and Heeden (U.S. Patent Number 5,640,459) fails to expressly disclose a plurality of speakers in equidistant position situated on the said lanyard.

Richenstein et al teaches in paragraph [0076], of a plurality of speakers mounted on a headband.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify the combined teachings of Hansson (U.S. Patent Number 5,487,182), Xixun (China Patent Number CN1149235) and Wang et al. (U.S. Patent Number 5,757,929) in view of Heeden (U.S. Patent Number 5,640,459) and in further view of Richenstein et al (U.S. Publication Number 2003/0083024 A1) in order to have a hands-free module capable of having a plurality of speakers positioned on a said lanyard.

Response to Arguments

Applicant's arguments filed 6/21/06 have been fully considered but they are not persuasive.

Regarding ***claims 1, 15 and 22***, the Applicant argues the cited prior art fails to render sufficient support that the distance of constant spatial separation is calculated to at least one of reduce a reverberated sound, limit variations in a path of preferred acoustic signal, shield the system from unwanted directional or ambient noise, reduce feedback and reduce barrel sound. Consequently, the applicant has admitted on page 8 lines 25-28 and page 9 lines 1-2 that prior art clearly teaches of preventing the retransmission or reverberated sound broadcasted by the wearable speaker.

Regarding claims 3 and 17, the Applicant argues that the Examiner has erred in the interpretation of the claimed language. The Examiner respectfully reminds the Applicant that the Examiner's position is to take the broadest, most reasonable interpretation of the claimed language. As presented in claims 3 and 17, the Applicant

claims, that a hands free device further comprises an ear bud. The Examiner again maintains that Hansson clearly teaches of an external speaker (14) being an ear bud. Nowhere does the claim teach of two speakers being external to the said device.

Based on the above response, ***claims 1-22*** stand rejected.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randy Peaches whose telephone number is (571) 272-7914. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Randy Peaches
September 5, 2006


CHARLES APPIAH
PRIMARY EXAMINER